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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,111	11/16/2001	Arnab Das	15-19-15-2	3440
32498 7590 03/28/2007 CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC ATTN: JOHN CURTIN P.O. BOX 1995 VIENNA, VA 22183			EXAMINER AGHDAM, FRESHTEH N	
			ART UNIT	PAPER NUMBER
			2611	
			MAIL DATE	DELIVERY MODE
			03/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

57

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No. 09/991,111	Applicant(s) DAS ET AL.	
	Examiner Freshteh N. Aghdam	Art Unit 2611	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 February 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 1 and 3-14.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.

13. ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 2/28/2007 have been fully considered but they are not persuasive.

Applicant's Arguments: Regarding claims 1, 3-10, and 13-14, page 5, applicant argues "encoded signaling information within existing shared control channels is not separately decoded such that a portion of the encoded information is decoded to derive transmission format information for a corresponding data transmission before a remainder of the encoded information is decoded. Said another way, none of the cited references, taken separately or in combination, discloses or suggests the use of a shared control channel as in claims 1, 3-10, 13, and 14."

Regarding claim 12, page 6, applicant argues "Lee does not suggest the claimed puncturing "tail symbols" that do not appear to be part of signaling information; rather, they are used for error checking."

Examiner's Response: Regarding claims 1, 3-10, and 13-14, Kim discloses separately decoding at least a portion of the encoded signaling information (Fig. 5-9; 1<sup>st</sup> and 2<sup>nd</sup> decoders); and deriving transmission format information (Col. 5, Lines 10-18 and 60-65 both shared and dedicated control channels are utilized to exchange signaling information; Col. 6, Lines 30-35 discloses that the dedicated control channel can be shared by several mobile station instead of being exclusively used by a particular mobile station) from the separately decoded portion of the encoded signaling

Art Unit: 2611

information for the corresponding data transmission before a remainder of the encoded signaling information is decoded (Fig. 5-9; CRC detectors). Kim is not explicit about using a shared control channel for processing control information. The instant application's disclosed prior art discloses using a shared control channel for processing control information (Pg. 1, Lines 16-35). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teaching of the instant application's disclosed prior art with Kim in order to increase bandwidth efficiency by utilizing a shared control channel to be shared among different mobile stations instead of a dedicated control channel.

Regarding claim 12, Kim discloses processing information in a wireless communication system via a dedicated control channel that includes encoded signaling information, wherein the encoded signaling information includes one or more portions of encoded information and decoding one or more portions of the encoded information to facilitate transmission in the wireless communication system (Fig. 5-9); and puncturing the signaling information (Fig. 2; Fig. 5, means 529; Col. 14, Lines 17-28). Kim is not explicit about selectively puncturing bits from the encoded signaling information such that the number of bits punctured from certain of the one or more portions is less than the number of bits punctured from the other portions; and separately decoding the certain one or more portions of the encoded signaling information to facilitate transmission in the wireless communication system. The instant application's disclosed prior art discloses using a shared control channel for processing control information to increase bandwidth efficiency by utilizing a shared control channel instead of a

dedicated control channel (Pg. 1, Lines 16-35). Lee discloses selectively puncturing of bits from one or more portions in a frame that is less than the puncturing of the bits from the remaining portions of the frame (Col. 6, Lines 7-43; Fig. 3-5) by puncturing the first portion of the frame and not puncturing the second portion of the frame that includes tail symbols. One of ordinary skill in the art would recognize that similar puncturing scheme could be applied to a signaling frame since both types of frames comprise of bits or symbols and Kim discloses that the signaling information is encoded and punctured; and also, Lee discloses that one of more portions of a frame of symbols is punctured more than the remaining portion or portions. Therefore, it would have been obvious to one of ordinary skill in the art to puncture one or more portions of the frame more than the remaining portion or portions (Col. 6, Lines 32-37).

Also, see Schramm et al (US 6,553,540), wherein Schramm discloses employing two different puncturing schemes to puncture a frame of symbols (Fig. 3; Col. 4, Lines 40-64; Col. 8, Lines 13-34) and Lundby et al (US 2004/0133841), wherein Lundby discloses that in a frame of symbol one or more portions of frame is punctured more and the remaining portion or portions are punctured less see paragraphs 10 and 51.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is (571) 272-6037. The examiner can normally be reached on Monday through Friday 9:00-5:30 pm.


Art Unit: 2611

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Freshteh Aghdam  
Examiner  
Art Unit 2611

March 23, 2007

  
**KEVIN BURD**  
**PRIMARY EXAMINER**